

REMARKS

Claims 1 and 3-7 are all of the claims presently pending in this application after entry of the foregoing amendments. Claim 2 is cancelled via this Amendment. The feature in claim 2 is added to claim 1, and claim 1 is further amended as described below.

Applicants respectfully traverse the prior art rejections in view of the following remarks. Since claim 1 now includes the feature of claim 2, the following discussion focuses on the rejection in numbered paragraph 5 of the Office Action, as that is the only rejection of claim 2.

In the present invention, the outermost cord layer has simultaneous roles of (1) propping the cross cord layer (consisting of innermost cord layer and middle cord layer) and (2) producing cornering power of a higher order. Further, the compression modulus of the coating rubber for the outermost cord layer contributes greatly to preventing the occurrence of cord breakage in the cords of the outermost cord layer.

Bourdon certainly discloses a belt of three-layer structure, but merely defines the cord angles of these layers for improving the wear resistance. However, Bourdon does not at all teach or suggest the above noted roles of the outermost layer and the compression modulus of the coating rubber for the outermost layer. At least as to the latter, the Examiner admits as much and, therefore, relies on Kohno to provide this deficiency.

Kohno defines the compression modulus of coating rubber for cords in the circumferential belt layer in order to prevent the cord breakage. In Kohno, tension in the circumferential direction is borne by the outermost layer in the circumferential belt. On the contrary, according to the present invention, tension in the circumferential direction is borne by the cross belt layer of innermost and middle cord layers to largely lower the tension required to be borne by the outermost cord layer in the circumferential direction, so that the outermost cord layer acts as a prop for protecting the cross cord layer against inputs from the road surface. See, e.g., the paragraph bridging pages 17 and 18, and also the paragraph bridging pages 18 and 19 in the specification, where this is described in greater detail.

Therefore, the present invention is entirely different from both Bourdon and Kohno in the object, construction and effects, and could not have easily been conceived therefrom, at least not without the proscribed use of hindsight. Kabe and Suzuki are not believed to be any more pertinent than Bourdon and Kohno with respect to the above-noted features.

Farnsworth does not at all teach or suggest the relationship between the groove in the tread and the belt end. Further, Farnsworth discloses that the cords of the middle cord layer and the outermost cord layer in the three-layer structure belt are crossed with each other. Thus, Farnsworth is clearly different from the present invention. Further, even if Farnsworth and Kohno could somehow have been combined, the combination would clearly be deficient.

Ishiguro discloses that the protection layer is arranged on the belt consisting of two belt layers over a region ranging from the tread to both side portions (bead portions). It would be clear to those skilled in the art that this protection layer could never correspond to the outermost cord layer defined in the present invention, and does not serve as the belt. Also, Ishiguro certainly discloses that the cord angle of the protection layer is 30-90°, but does not at all teach or suggest the relationship to the cord angle of the belt (middle cord layer as defined in the present invention). Matsunuma and Takagi are not any more pertinent than Ishiguro and Kohno with respect to the above noted features.

In order to more clearly distinguish the outermost cord layer defined in the present invention from the protection layer of Ishiguro, claim 1 is hereby amended to include the recitation that “the outermost cord layer has a width narrower than a width of the innermost cord layer.” Support is found in the examples in Table 2 and the drawing figures as well.

Thus, claim 1 is believed to be allowable for at least the foregoing reasons, and the remaining claims are believed to be allowable at least by virtue of their dependency.


In view of the preceding amendments and remarks, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue that the Examiner feels may be best resolved through a personal or telephonic interview, he is kindly requested to contact the undersigned attorney at the local telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.111
U.S. SERIAL NO. 09/398,006

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A Petition for Extension of Time with appropriate fee accompanies this document. The USPTO is directed and authorized to charge all additional required fees (except the Issue Fee and/or the Publication Fee) to our Deposit Account No. 19-4880. Please also credit any overpayment to said Deposit Account.

Respectfully submitted,



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